

CLAIMS

1. A network system comprising:

connection control means for controlling the switching of the connection destination of a terminal;

5 first and second servers belonging to first and second different networks, respectively and connected to the terminal, respectively through the first and second networks;

operating server-switching control means for migrating a process from the first server to the second server; and

10 server/network cooperation control means having a storage unit for storing the information of the first and second servers and the information of the second network, and connected to the operating server-switching control means and to the connection control means,

15 wherein the server/network cooperation control means comprises information processing means for executing processing for receiving a process migration request from the first server to the second server and sending a migration start request including the information of the second server as a migration
20 destination stored in the storage unit to the operating server-switching control means, and processing for receiving a target process migration completion notification from the operating server-switching control means and sending a switching request from the first network to the second network to the
25 connection control means, the switching request including the information of the second network stored in the storage unit.

2. A network system according to claim 1, wherein the

operating server-switching control means is included in at least one of the first and second servers.

3. A process migration method between networks of a network system which comprises:

5 connection control means for controlling the switching of the connection destination of a terminal;

first and second servers belonging to first and second different networks, respectively and connected to the terminal, respectively through the first and second networks;

10 operating server-switching control means for migrating a process from the first server to the second server; and

server/network cooperation control means connected to the operating server-switching control means and to the connection control means,

15 wherein the process migration method comprises:

a first step at which the server/network cooperation control means receives a process migration request from the first server to the second server, and sends a migration start request including the information of the second server as a migration
20 destination to the operating server-switching control means;

a second step at which the operating server-switching control means migrates a target process from the first server to the second server on receiving the migration start request;

a third step at which the server/network cooperation
25 control means receives a process migration completion notification from the operating server-switching control means and sends a switching request from the first network to the second

network to the connection control means, the switching request including the information of the second network; and

a fourth step at which the connection control means switches a target network from the first network to the second
5 network.

4. A process migration method between networks according to claim 3, wherein the target process is put in a pause status before it is migrated to the second server at the second step, and process migration method further comprises a fifth step
10 at which the pause status of the target process migrated between the servers is released after the fourth step.

5. A process migration method between networks according to claim 3, wherein a shiftable connection destination identifier is shifted to the second server at the second step.

15 6. A server/network cooperation control device used in a network system, the network system comprising:

connection control means for controlling the switching of the connection destination of a terminal;

20 first and second servers belonging to first and second different networks, respectively and connected to the terminal, respectively through the first and second networks; and

operating server-switching control means for migrating a process from the first server to the second server,

25 wherein the server/network cooperation control device is connected to the operating server-switching control means and the connection control means, and comprises:

a storage unit for storing the information of the first

and second servers and the information of the second network;
and

information processing means for executing processing for
receiving a process migration request from the first server to
5 the second server and sending a migration start request including
the information of the second server as a migration destination
stored in the storage unit to the operating server-switching
control means, and processing for receiving a target process
migration completion notification from the operating
10 server-switching control means and sending a switching request
from the first network to the second network to the connection
control means, the switching request including the information
of the second network stored in the storage unit.

7. A program of a server/network cooperation control
15 computer used in a network system, the network system comprising:

connection control means for controlling the switching
of the connection destination of a terminal;

first and second servers belonging to first and second
different networks, respectively and connected to the terminal,
20 respectively through the first and second networks; and

operating server-switching control means for migrating
a process from the first server to the second server,

wherein the computer is connected to the operating
server-switching control means and the connection control means,
25 and

wherein the program causes the computer to execute:

(1) processing for receiving a process migration request

from the first server to the second server and sending a migration start request including the information of the second server as a migration destination stored in a storage unit of the computer to the operating server-switching control means; and

- 5 (2) processing for receiving a target process migration completion notification from the operating server-switching control means and sending a switching request from the first network to the second network to the connection control means, the switching request including the information of the second
10 network stored in the storage unit.

AMENDMENTS UNDER ARTICLE 34

Amendments under Article 34**C L A I M S (Amended)**

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1. (Amended) A network system comprising:

connection control means for controlling the switching
of the connection destination of a terminal;

first and second servers belonging to first and second
10 different networks, respectively and connected to the terminal,
respectively through the first and second networks;

operating server-switching control means for migrating
a process from the first server to the second server; and

server/network cooperation control means having a storage
15 unit for storing the information of the first and second servers
and the information of the second network, and connected to the
operating server-switching control means and to the connection
control means,

wherein the server/network cooperation control means
20 comprises information processing means for executing processing
for receiving a process migration request from the first server
to the second server and sending a migration start request
including the information of the second server as a migration
destination stored in the storage unit to the operating
25 server-switching control means, and processing for receiving
a target process migration completion notification from the
operating server-switching control means and sending a switching
request from the first network to the second network to the

connection control means, the switching request including the information of the second network stored in the storage unit, and

the connection control means and the first and second
5 servers execute communication using a transport level protocol.

2. A network system according to claim 1, wherein the operating server-switching control means is included in at least one of the first and second servers.

3. (Amended) A process migration method between networks
10 of a network system which comprises:

connection control means for controlling the switching of the connection destination of a terminal;

first and second servers belonging to first and second different networks, respectively and connected to the terminal,
15 respectively through the first and second networks;

operating server-switching control means for migrating a process from the first server to the second server; and

server/network cooperation control means connected to the operating server-switching control means and to the connection
20 control means, and

in which the connection control means and the first and second servers execute communication using a transport level protocol,

wherein the process migration method comprises:

25 a first step at which the server/network cooperation control means receives a process migration request from the first server to the second server, and sends a migration start request

including the information of the second server as a migration destination to the operating server-switching control means;

a second step at which the operating server-switching control means migrates a target process from the first server
5 to the second server on receiving the migration start request;

a third step at which the server/network cooperation control means receives a process migration completion notification from the operating server-switching control means and sends a switching request from the first network to the second
10 network to the connection control means, the switching request including the information of the second network; and

a fourth step at which the connection control means switches a target network from the first network to the second network.

15 4. A process migration method between networks according to claim 3, wherein the target process is put in a pause status before it is migrated to the second server at the second step, and process migration method further comprises a fifth step at which the pause status of the target process migrated between
20 the servers is released after the fourth step.

5. A process migration method between networks according to claim 3, wherein a shiftable connection destination identifier is shifted to the second server at the second step.

6. (Amended) A server/network cooperation control device
25 used in a network system, the network system comprising:

connection control means for controlling the switching of the connection destination of a terminal;

first and second servers belonging to first and second different networks, respectively and connected to the terminal, respectively through the first and second networks; and

operating server-switching control means for migrating
5 a process from the first server to the second server, and

in which the connection control means and the first and second servers execute communication using a transport level protocol,

wherein the server/network cooperation control device is
10 connected to the operating server-switching control means and the connection control means, and comprises:

a storage unit for storing the information of the first and second servers and the information of the second network; and

15 information processing means for executing processing for receiving a process migration request from the first server to the second server and sending a migration start request including the information of the second server as a migration destination stored in the storage unit to the operating server-switching
20 control means, and processing for receiving a target process migration completion notification from the operating server-switching control means and sending a switching request from the first network to the second network to the connection control means, the switching request including the information
25 of the second network stored in the storage unit.

7. (Amended) A program of a server/network cooperation control computer used in a network system, the network system

comprising:

connection control means for controlling the switching of the connection destination of a terminal;

first and second servers belonging to first and second
5 different networks, respectively and connected to the terminal,
respectively through the first and second networks; and

operating server-switching control means for migrating a process from the first server to the second server, and

in which the connection control means and the first and
10 second servers execute communication using a transport level
protocol

wherein the computer is connected to the operating
server-switching control means and the connection control means,
and

15 wherein the program causes the computer to execute:

(1) processing for receiving a process migration request
from the first server to the second server and sending a migration
start request including the information of the second server
as a migration destination stored in a storage unit of the computer
20 to the operating server-switching control means; and

(2) processing for receiving a target process migration
completion notification from the operating server-switching
control means and sending a switching request from the first
network to the second network to the connection control means,
25 the switching request including the information of the second
network stored in the storage unit.